Figure 3 is a schematic view of an alternative method of forming a peelable lid structure.

Figure 1 shows a basic flexible peelable lid structure 1 which has been fixed to a "ring" 2 for double seaming onto a container (not shown). The closure formed by the peelable lid structure and ring are typically intended for use in the packaging of fish, pet foods etc where an easy open end is desirable. Such products require processing in a retort at temperatures of typically 120°C to 132°C and this, together with the requirement of double seaming ring 2 to a the container, make securing of the tab imperative. Prior to the present invention, it has always been thought necessary to have a relatively thick layer of aluminium in the peelable lid structure in order that the tab 3 be held against centre panel 4 by the dead fold of the aluminium layer.

In the structure 1 of figure 1, adhesive between the tab 3 and centre panel 4 of the peelable lid structure 1, secures the tab through a hole 5 in the lidding. Different ways of achieving this bond will become apparent from the description of figures 2 and 3 which follow.

Figure 2a and 2b are different aspects of the same method which index a lidding material 6 from left to right as shown in the drawings and a strip of patch material 7 at an angle to the path of the lidding material.

As a first step A in the process, a hole 5 is formed in the lidding material 6 at a position which corresponds to a tab of the final peelable lid structure. A self-

adhesive patch 8 which ideally includes a reinforced backing surface, is either punched out (figure 2a) or cut off (figure 2b) from the strip of patch material 7 and stuck to the tab position (B and C). The patch 8 is usually slightly larger than the size which the final tab of the peelable lid structure will be.

The lidding material with patch 8 is fed into a lid cutter and cut in conventional manner (step D) and sealed to a ring 2 to form the structure 1. Finally, the tab 3 is folded and stuck by adhesive on the patch 8 which is exposed by the hole 5. The final peelable lid structure is show generally at position E.

Although this embodiment is described as using adhesive to secure the tab, it is clearly possible to secure the tab by heal sealing if a heat sealable layer such as polypropylene is provided on the lidding material and patch material. The important feature is that curling of the tab during thermal processing is prevented. This method requires no difficult folding and makes good use of material.

In the embodiment of figure 3, a lidding material 6 is indexed from left to right and a hole 5 punched in the centre of the future tab (step A) in a similar manner to that shown in figure 2. This embodiment, however, does not require a separate strip of patch material. Instead, an outer part of the tab is used as a patch.

A U-shape is lanced or cut in a position corresponding to an outer part 10 of the tab, from the lidding material (step B) and the cut material folded down to around 90 degrees. Motion of the lidding index

feed continues the folding process until the outer part is completely folded over an inner part 11 of the tab.

If the lidding material includes a heat sealable layer, this can be used for bonding purposes. Alternatively, a small drop of glue can be applied to the underside of the lidding material, particularly if this can be fed through the machine without touching machine components. The adhesive can be applied by various methods such as gravure printing. The use of hot melt adhesive means that the glue can be reactivated by reheating using a contact plate, by ultraviolet radiation or by induction heating for example. The tab may be secured either prior to, during or after heat sealing to the ring. The heat seal may be used to reactivate adhesive if the lidding material includes a conductive layer. Finally, a combination of the patch process of figure 2 and the tab folding of figure 3 can be used if extra rigidity of the tab is desirable. In the last case, patch material would be indexed and adhered to the underside of the tab.

The lidding material is fed into a lid cutter and cut in conventional manner (step D) and sealed to a ring 2 to form the structure 1. Finally, the tab 3 is folded and stuck through the hole 5 by a heat seal layer of the lidding material. Alternatively, the tab is secured by a hot melt adhesive. The final peelable lid structure is show generally at position E.

Although these methods and structures have all been described with reference to a hole 5 which is formed in the tab position, it is clearly possible for a hole to be

CLAIMS:

1. A peelable lid structure for a container, the peelable lid structure including:

a barrier layer for preventing the passage of fluids; and

a tab extending from a centre panel of the peelable lid structure for removing the peelable lid structure from the container to allow access to the container contents;

in which the barrier layer includes less than 20 microns thickness of aluminium;

and in which the tab is folded over the centre panel and secured in the folded position on the centre panel for processing of can contents and/or handling operations.

2. A peelable lid structure according to claim 1, in which the aluminium layer is not more than 15 microns in thickness.

3. A peelable lid structure according to claim 1 or claim 2, in which the peelable lid structure includes one or more of the following layers: polyethylene terephthalate (PET), aluminium, nylon and/or polypropylene.

4. A peelable lid structure according to any one of claims 1 to 3, in which tab is secured in the folded position by an adhesive and/or by heat sealing.

5. A peelable lid structure according to claim 4, in which the tab or centre panel includes a patch, an area of which is exposed by a hole in the tab or centre panel respectively, and the tab is secured in the folded position by the adhesive or heat sealing to the exposed area of patch.

6. A method of forming a peelable lid structure having a centre panel and a tab extending from the centre panel, the method comprising:

forming a hole in a portion of a lidding material corresponding to the centre panel of the peelable lid structure;

covering the hole by fixing a patch to a first side of the lidding material, thereby forming an area of patch exposed by the hole on the opposite side of the lidding material;

cutting the peelable lid structure out of the lidding material;

folding the tab portion of the peelable lid structure over the centre panel, thereby covering the exposed area; and

securing the tab to the centre panel by heat sealing or bonding of the exposed region.

7. A method of forming a peelable lid structure having a centre panel and a tab extending from the centre panel, the method comprising:

forming a hole in a portion of a lidding material corresponding to the tab of the peelable lid structure;

covering the hole by fixing a patch to a first side of the lidding material, thereby forming an area of patch exposed by the hole on the opposite side of the lidding material;

cutting the peelable lid structure out of the lidding material;

folding the tab portion of the peelable lid structure over the centre panel, so that the exposed region is covered by the centre panel; and

securing the tab to the centre panel by heat sealing or bonding of the exposed area.

8. A method according to claim 7, in which the hole is formed in an inner part of the tab and the patch comprises an outer part of the tab portion of the peelable lid structure, the method further comprising folding the outer part of the tab over an inner part of the tab, thereby covering the hole and forming the exposed area.

9. A method according to claim 7, further comprising:

folding an outer part of the tab over an inner part of the tab so that the patch is disposed between the outer and inner parts of the tab; and

fixing the outer part of the tab to the inner part.